103 – IMAGE ANALYSIS

TEAM INFORMATION	
Team Name:	Barely Legal
Results Email:	▮▮▮▮▮▮▮▮▮▮▮
Examination Time Frame:	to 10/31/08

INSTRUCTIONS

Description: Examine the images in the **103_Image_Analysis_Challenge2008** folder. Provide evidence as to the metadata contained or recovered for each of the files. Note not only the metadata, but why it may be of investigative interest.

Points will be awarded for the recovered metadata, the notation of metadata of possible investigative interest, and reasoning for your decision.

Total Weighted Points: 5 Total Points available per file – Total 100 Points Available

1. **Answers** – Supply the found/recovered metadata.

2. **Investigative Interest** – Supply the information that you feel is of investigative interest and why you consider it as such.

3. **Methodology** – Provide details to support your decision.

INTERNAL REVIEWER USE ONLY			
Reviewer:		Points Awarded:	
Date:		Review Period:	**to**
Completed: ☐ Yes	☐ No	☐ Partial	

METHODOLOGY / NOTES FORM

103 – Image Analysis Level 1

Date / Time	Notes
31-Oct-08 3:50 pm	Tool(s) Used: ExifTool by Phil Harvey (http://www.sno.phy.queensu.ca/~phil/exiftool) Viewed metadata relating to images via command line use of exiftool `exiftool -u -a -g1 FILE` where FILE is the image filename. The metadata within exiftool is comprehensive and identifies if third party tools leave any metadata.

103 – Image Analysis

Description: Examine the images in the 103_Image_Analysis_Challenge2008 folder. Provide evidence as to the metadata contained or recovered for each of the files. Note not only the metadata, but why it may be of investigative interest.

Metadata: The found/recovered metadata for all files was too large to print, but the complete file can be found on the "Team Barely Legal" CD as "Reports/103/103 Exif Information.doc"

Investigative Interest:

Many types of metadata were found in the various files; however, without any frame of reference to draw on it is difficult to determine what is and is not relevant in this particular case. For example, some of the metadata contained the term "Ducky" which indicates that the image was saved in Photoshop's "Save for Web" format. Also, date and time or camera information could be notable in cases where tying the file to a device is important, however none of those assumptions were provided for this case. So in that case, *everything* is potentially notable given the right context.

We have summarized in an Excel spread sheet each of the types of metadata we detected. A much larger document (45 pages) is included on the CD we submitted, containing all the metadata in detail. This document contains copious amounts of potentially notable metadata for your perusal and application to the case as you may have envisioned it.

File name	beach_foot.jpg	bearded_guy.jpg	blue_eyes.jpg.jpg	board.jpg	bride.jpg	brunette.jpg
Metadata	--- File ----	--- File ----	--- File ----	--- File ----	--- File ----	--- File ----
	--- JFIF ----	--- JFIF ----	--- JFIF ----	--- IFD0 ----	--- JFIF ----	--- IFD0 ----
	--- IFD0 ----	--- IFD0 ----	--- IFD0 ----	--- ExifIFD ----	--- IFD0 ----	--- ExifIFD ----
	--- ExifIFD ----	--- ExifIFD ----	--- ExifIFD ----	--- Casio ----	--- ExifIFD ----	--- Canon ----
	--- InteropIFD ----	--- Adobe ----	--- IFD1 ----	--- InteropIFD ----	--- IFD1 ----	--- InteropIFD ----
	--- IFD1 ----	--- Composite ----	--- IPTC ----	--- IFD1 ----	--- InteropIFD ----	--- IFD1 ----
	--- IPTC ----		--- Photoshop ----	--- PrintIM ----	--- IPTC ----	--- Composite ----
	--- Photoshop ----		--- XMP-xmp ----	--- IPTC ----	--- Photoshop ----	
	--- XMP-microsoft ----		--- XMP-dc ----	--- Photoshop ----	--- XMP-tiff ----	
	--- XMP-xmpMM ----		--- XMP-photoshop ----	--- XMP-xmp ----	--- XMP-xmp ----	
	--- XMP-tiff ----		--- XMP-xmpMM ----	--- XMP-dc ----	--- XMP-xmpMM ----	
	"--- XMP-XMP ----		--- XMP-tiff ----	--- Composite ----	--- XMP-exif ----	
	--- XMP-exif ----		--- XMP-exif ----		--- XMP-dc ----	
	--- XMP-dc ----		--- Adobe ----		--- XMP-photoshop ----	
	--- XMP-photoshop ----		--- Composite ----		--- Adobe ----	
	--- ICC-header ----				--- Composite ----	
	--- ICC_Profile ----					
	--- ICC-view ----					
	--- ICC-meas ----					
	--- Adobe ----					
	--- Composite ----					
Dimensions	3072x2304	800x800	3072x2304	2048x1536	256x354	3072x2304

Team "Barely Legal"

curtain_lady.jpg	eagle.jpg	elder_lady.jpg	girl.jpg.jpg	girl_with_glasses.jpg	guy.jpg	keyboard.jpg
---- File ----	---- File ----	---- File ----	---- File ----	---- File ----	---- File ----	---- File ----
---- JFIF ----	---- JFIF ----	---- JFIF ----	---- JFIF ----	---- JFIF ----	---- JFIF ----	---- JFIF ----
---- IFD0 ----	---- IFD0 ----	---- Composite ----	---- IFD0 ----	---- Composite ----	---- Ducky ----	---- IFD0 ----
---- ExifIFD ----	---- ExifIFD ----		---- ExifIFD ----		---- Adobe ----	---- ExifIFD ----
---- IFD1 ----	---- Canon ----		---- IFD1 ----		---- Composite ----	---- Canon ----
---- IPTC ----	---- IFD1 ----		---- IPTC ----			---- IFD1 ----
---- Photoshop ----	---- XMP-exif ----		---- Photoshop ----			---- XMP-exif ----
---- XMP-xmp ----	---- XMP-tiff ----		---- XMP-xmp ----			---- XMP-tiff ----
---- XMP-dc ----	---- Composite ----		---- XMP-dc ----			---- Composite ----
---- XMP-photoshop ----			---- XMP-photoshop ----			
---- XMP-xmpMM ----			---- XMP-xmpMM ----			
---- XMP-tiff ----			---- XMP-tiff ----			
---- XMP-exif ----			---- XMP-exif ----			
---- Adobe ----			---- Adobe ----			
---- Composite ----			---- Composite ----			
2183x1836	3456x2304	610x865	2304x3072	463x500	377x541	3648x2736

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lady_in_tshirt.jpg.jpeg	leonardo.jpg	pensive.png	sequin_girl.jpg	spoons.bmp	tulips.jpg	veiled_lady.jpg
--- File ---	--- File ---	--- File ---	--- File ---	--- File ---	--- File ---	--- File ---
--- JFIF ---	--- JFIF ---	--- PNG ---	--- JFIF ---	--- BMP ---	--- IFD0 ---	--- JFIF ---
--- Ducky ---	--- Composite ---	--- Composite ---	--- Composite ---	--- Composite ---	--- ExifIFD ---	--- IFD0 ---
--- Adobe ---					--- Canon ---	--- ExifIFD ---
--- Composite ---					--- InteropIFD ---	--- IFD1 ---
					--- IFD1 ---	--- Composite ---
					--- IPTC ---	
					--- Photoshop ---	
					--- XMP-xmp ---	
					--- XMP-dc ---	
					--- XMP-photoshop ---	
					--- XMP-xmpMM ---	
					--- XMP-tiff ---	
					--- XMP-exif ---	
					--- Adobe ---	
					--- Composite ---	
150x188	3072x2304	1200x687	210x271	2160x1440	2272x1704	532x753